REMARKS

INTRODUCTION

Claims 1-11 were previously and are currently pending and under consideration.

Claims 1-11 have been rejected.

Claims 1-2, 6, and 8-11 have been amended herein.

Claim 12 has been added herein.

No new matter is being presented, and approval and entry are respectfully requested.

INTERVIEW

Applicant thanks the Examiner for granting an After-Final Interview held March 4, 2004. At the Interview, the Examiner and Applicant's Representative discussed the presently claimed invention, functions of the mediator, and differences over the middle-ware server of the prior art. It was agreed at the Interview that the Prior Art does not *appear* to disclose a mediator receiving indexes and deciding which index should be sent to which search/retrieval engine.

OBJECTION TO THE DRAWINGS

In the Office Action, at page 2, the drawings were objected to. Figures 1 and 2 have been corrected. Figure 3 is discussed below. Therefore, the outstanding drawing objection should be resolved. Reconsideration and withdrawal of the outstanding objection to the drawings is respectfully requested.

CHANGES TO FIGURES 1-4

Figures 1-4

Figures 1-4 have been changed to show client/browser 4a. The client/browser is not new matter. See at least: Figure 9 which shows a user's client; Web Browser 18 of user 4; page 2, line 17 mentioning "A user 4 of the information providing system 1 accesses ... the retrieval engines 3 via the Web browser to receive ..."

Figure 3

Figure 3 has been amended to remove "Prior Art" to correct a mistake. The Background of the present specification states that the push-program feature in Figure 3 is not Prior Art. At page 6, line 26, through page 7 of the Background, problems of <u>future</u> information retrieval engines are discussed. Furthermore, it is stated that the problems had not been solved at the time of the present invention. MPEP § 608.02(g) states that a figure should be labeled prior art when "<u>only</u> that which is old is illustrated" (emphasis added). Furthermore, although MPEP §2129 states that an Applicant's <u>admission</u> can constitute prior art, Applicant has not admitted that the push program of Figure 3 is Prior Art. It is respectfully submitted that Figure 3 is correctly modified to no longer refer to "Prior Art", and Figure 3 may be relied on as Prior Art only for those aspects of the figure that the specification reveals to be admitted prior art (e.g. a search system having information servers and retrieval engines but lacking a push program).

In sum, it is respectfully submitted that what Applicant has admitted to be Prior Art cannot be determined based only on a label on a figure, but instead must be determined based on the specification as a whole. Where the specification indicates that a portion of a figure is not prior art, then the figure does not depict "only that which is old" and the figure should not be labeled "Prior Art."

CHANGES TO THE SPECIFICATION

The specification has been amended at page 2, line 17, to include web browser/client 4a in Figures 1-4.

REJECTIONS UNDER 35 USC § 112, FIRST PARAGRAPH

In the Office Action, at page 2, claims 9-11 were rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth therein. For support in the specification, the Examiner is respectfully directed to at least page 18, lines 16-19 (web servèr/information source receiving push program that executes and detects changes in provided information); page 28, lines 2-7 (renewal information is indicia of differences); and page 2, line 24 through page 3, line 5 (comparing current information with previous information).

REJECTIONS UNDER 35 USC § 112, SECOND PARAGRAPH

In the Office Action, at page 2, claims 1-11 were rejected under 35 U.S.C. § 112, second paragraph, for the reasons set forth therein.

It is respectfully submitted that "topical" is not indefinite. See for example Figure 8 which shows various topics, information of which may be transmitted. However, the term "topical" is deleted to broaden the claims. Therefore, the claims now encompass topical information as well as other types of information.

It is respectfully submitted that "a user's client" is not unclear or indefinite. A client is a well known component of a client-server system. See Figure 9 and amended Figure 4. A user's client is simply a client used by a user. Claim 1, for example, recites receiving a request from a user's client. There is nothing unclear about receiving a request from a client that is used or possessed by a user.

The "information server" of claim 8 has been corrected to clarify what was a shorthand label for an "information source server", which is not an objectionable term.

"Indicia of differences" is a concise way of referring to information indicating differences. There is nothing unclear or indefinite about a difference between two things (e.g. available server information), nor is there any uncertainty about information that indicates what the difference is.

Finally, as stated in MPEP §2173.02, "[t]he test for definiteness ... is whether those skilled in the art would understand what is claimed when the claim is read in light of the

specification ... the Examiner <u>should [provide] an analysis as to why the phrase(s) used in the claim is 'vague and indefinite'</u>" (emphasis added). The rejection provided no analysis as to why the subject terms are considered indefinite. Applicant respectfully requests that any future §112, second paragraph rejection include a required analysis or explanation. It is difficult for Applicant to address the Examiner's concern about definiteness if the concern is expressed only as a conclusion without any explanation.

Withdrawal of the rejection is respectfully requested.

REJECTIONS UNDER 35 USC § 103

In the Office Action, at pages 4-5, claims 1 and 9-11 were rejected under 35 U.S.C. § 103 as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Skinner. This rejection is traversed and reconsideration is requested.

INTERMEDIARY DECIDING WHICH RETRIEVAL ENGINE IS TO RECEIVE AN INDEX RECEIVED BY THE INTERMEDIARY

Amended claim 1 recites "the mediating apparatus deciding which received individual indexes to send to which retrieval engines based on comparing the received individual indexes with a predetermined index selection condition". See also claims 2, 6, 8, 9 and 12 for other features covered by the remarks below.

Applicant notes that the subject claim changes only clarify what was previously covered by the respective claims. See the previous claims reciting selecting an index from among plural received indexes based on a condition and sending it to a retrieval engine, etc. It is respectfully noted that selecting an index to send to a retrieval engine is simply another way of describing how to match an index with a retrieval engine within a system of plural retrieval engines and plural indexes to be sent to the engines. For additional support of the claim amendment see also Figure 14 S509, and page 11, lines 1-10, discussing an intermediary sending an index to a suitable retrieval engine according to an index selection condition.

As discussed at the Interview, the intermediary of Skinner receives two basic types of information. It receives and relays ordinary client/server requests/responses. These responses are not indexes but rather include row data (encapsulated as objects) in the database being

searched. The intermediary of Skinner also receives class definitions that were automatically derived from a database schema. The intermediary does not decide on a retrieval engine to receive the class definitions, because (1) the class definitions go no further than the intermediary, and (2) the intermediary of Skinner is designed to relay exchanges between clients and database servers; not search engines and information sources.

EXCHANGE OF INDEXES

The pending claims recite indexes. In other words, within the context of a 'client(s) retrieval engines intermediary(s) information source(s)' system architecture, the intermediary receives indexing information of the information sources and decides which retrieval engine it should be routed to. The intermediary handles the flow of indexes. Skinner does not relay indexes.

An index is a well-known term of art. As mentioned at MPEP § 2111.01, "the words of [a] claim must be given their plain meaning unless applicant has provided a clear definition in the specification." Applicant respectfully requests that the claims be interpreted in view of the plain meaning of an index.

The plain meaning of an index is well understood in the art and this meaning must be applied to the present claims. An index describes where certain pieces of information may be found within a set of pieces information. Examples of different types of indexes include array indexes, database indexes describing where certain rows may be found in the database, keyword indexes mapping keywords in a document to locations where they appear in the document, a list of URL locations or other items available from a web server can be an index of a web server, etc. Another feature of an index is that it exists apart from the information that is being indexed. For example, a database search that uses an index returns rows of the database, not the index used to find the rows. A database table can exist with or without an index.

In view of the plain meaning of "index", an "an individual index indexing information items that [an information source is] capable of providing" (claim 1) is simply an index that describes locations of information items provided by the information source, which differs from the database schema/metadata of Skinner (discussed below).

14

The rejection compares the presently recited indexes to the metadata of Skinner. As summarized in the Abstract of Skinner, "Schema information in the form of metadata structures is used to generate data classes for the client tier and the application tier". The metadata of Skinner is not an index. In contrast, it is structural information that represents database structure such as tables, relations between tables, key columns, etc. This information is not the actual data or rows provided by the database server. The tables of the database could be completely empty and the schema and corresponding metadata would be the same. To the extent that Skinner does disclose an index, it is described independently of the schema/metadata and is referred to as the classic database index used internally only by the database engine itself (see col. 13, lines 15-20, noting that "Each row represents a set of attribute values associated with a particular index"). The schema-derived metadata of Skinner is used to define object classes. The schema metadata of Skinner does not describe locations of data (e.g. physical locations of rows) as does the index mentioned at column 13. The schema-derived metadata does not depend upon the actual data that is stored in the rows and tables of the database, where such actual data is indexed by the index mentioned at column 13.

To further explain the difference between an index and a schema or metadata derived therefrom, it is noted that the Microsoft Computer Dictionary (4th ed.) indicates that a "schema" is a "description of a database to a database management system (DBMS) in the language provided by the DBMS. A schema defines aspects of the database such as attributes (fields) and domains and parameters of the attributes." A schema is usually generated by a database engine and is often given as SQL commands that can be used to recreate the unpopulated database entities (e.g. tables). A portion of an example of a schema might be:

```
CREATE TABLE address
(
address_identifier INT NOT NULL,
address_state CHAR(2) NOT NULL,
address_city CHAR(40) NOT NULL,
address_zip_code NUMERIC(5, 0) NOT NULL,
PRIMARY KEY (address_identifier)
)
```

Withdrawal of the rejection is respectfully requested.

DEPENDENT CLAIMS

The dependent claims are deemed patentable due at least to their dependence from allowable independent claims. These claims are also patentable due to their recitation of independently distinguishing features. For example, claim 4 recites that "said information sources each has, as the index output function, a function of receiving a push program defining a method of producing and outputting the individual index to produce and output the individual index in accordance with the method defined by the push program". This feature is not taught or suggested by the prior art. Withdrawal of the rejection of the dependent claims is respectfully requested.

NEW CLAIM

New claim 12 has been added to clarify an aspect of the present invention in which information sources comprise web servers and where retrieval or search engines index the web servers.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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